Appendix F

Fiscal Year 2002 Authorized Equipment Purchase List

Fiscal Year 2002 Authorized Equipment Purchase List

The Fiscal Year 2002 State Domestic Preparedness Program authorized equipment purchase list was derived from the Standardized Equipment List (SEL). The SEL was developed by the Interagency Board (IAB) for Equipment Standardization and Interoperability. The IAB compiled the SEL to delineate the types of equipment necessary for terrorist incident response. Because the SEL also contains lists of general use and support equipment, a more narrow list was derived from the SEL to identify the specific types of specialized equipment authorized for purchase under the Fiscal Year 2002 State Domestic Preparedness Program. A cross-section of officials representing the U.S. Department of Justice (OJP and FBI), the Public Health Service (PHS), the Federal Emergency Management Agency (FEMA), the U.S. Department of Energy (DOE), and State and local WMD response experts assisted in the development of this authorized equipment purchase list and in identifying unallowable items.

Authorized equipment purchases may be made in the following categories:

1. Personal Protective Equipment (PPE)
2. Explosive Device Mitigation and Remediation Equipment
3. WMD Technical Rescue Equipment
4. Interoperable Communications Equipment
5. Detection Equipment
6. Decontamination Equipment
7. Physical Security Enhancement Equipment
8. General Support Equipment
9. Medical Supplies and Limited Types of Pharmaceuticals

1. Personal Protective Equipment - Equipment worn to protect the individual from hazardous materials and contamination. Levels of protection vary and are divided into three categories based on the degree of protection afforded. The following constitutes equipment intended for use in a chemical/biological threat environment:

Level A. Fully encapsulated, liquid and vapor protective ensemble selected when the highest level of skin, respiratory and eye protection is required. The following constitutes Level A equipment for consideration:

- Fully Encapsulated Liquid and Vapor Protection Ensemble, reusable or disposable (tested and certified against CB threats)
- Fully Encapsulated Training Suits
- Testing Equipment for fully encapsulated suits
- Closed-Circuit Rebreather (minimum 2-hour supply, preferred), or open-circuit SCBA or, when appropriate, Air-Line System with 15-minute minimum escape SCBA
- Spare Cylinders/Bottles for rebreathers or SCBA and service/repair kits
- Chemical Resistant Gloves, including thermal, as appropriate to hazard

- Personal Cooling System; Vest or Full Suit with support equipment needed for maintaining body core temperature within acceptable limits
- Hardhat
- Chemical/Biological Protective Undergarment (fire resistant optional)
- Inner Gloves
- Approved Chemical Resistant Tape
- Chemical Resistant Boots, Steel or Fiberglass Toe and Shank
- Chemical Resistant Outer Booties
- HAZMAT gear bag/box

Level B. Liquid splash resistant ensemble used with highest level of respiratory protection. The following constitute Level B equipment and should be considered for use:

- Liquid Splash Resistant Chemical Clothing, encapsulated or non-encapsulated
- Liquid Splash Resistant Hood
- Closed-Circuit Rebreather (minimum 2-hour supply, preferred), open-circuit SCBA, or when appropriate, Air-Line System with 15-minute minimum escape SCBA
- Spare Cylinders/Bottles for rebreathers or SCBA (NIOSH-approved) and service/repair kits
- Chemical Resistant Gloves, including thermal, as appropriate to hazard
- Personal Cooling System; Vest or Full Suit with support equipment needed for maintaining body core temperature within acceptable limits
- Hardhat
- Chemical/Biological Protective Undergarment (fire resistant optional)
- Inner Gloves
- Approved Chemical Resistant Tape
- Chemical Resistant Boots, Steel or Fiberglass Toe and Shank
- Chemical Resistant Outer Booties
- HAZMAT Gear Bag/Box

Level C. Liquid splash resistant ensemble, with same level of skin protection of Level B, used when the concentration(s) and type(s) of airborne substances(s) are known and the criteria for using air-purifying respirators are met. The following constitute Level C equipment and should be considered for use:

- Liquid Chemical Splash Resistant Clothing (permeable or non-permeable)
- Liquid Chemical Splash Resistant Hood (permeable or non-permeable)
- Tight-fitting, Full Facepiece, Negative Pressure Air Purifying Respirator with the appropriate cartridge(s) or canister(s) and P100 filter(s) for protection against toxic industrial chemicals, particulates, and military specific agents.
- Tight-fitting, Full Facepiece, Powered Air Purifying Respirator (PAPR) or PAPR with chemically resistant hood with appropriate cartridge(s) or canister(s) and high-efficiency filter(s) for protection against toxic industrial chemicals, particulates, and military specific agents.
- Equipment or System Batteries will include those that are rechargeable (e.g. NiCad) or non-rechargeable with extended shelf life (e.g. Lithium)

- Chemical Resistant Gloves, including thermal, as appropriate to hazard
- Personal Cooling System; Vest or Full Suit with support equipment
- Hardhat
- Inner Chemical/Biological Resistant Garment (fire resistant optional)
- Inner Gloves
- Chemical Resistant Tape
- Chemical Resistant Boots, Steel or Fiberglass Toe and Shank
- Chemical Resistant Outer Booties
- HAZMAT Gear Bag/Box

Level D. Selected when no respiratory protection and minimal skin protection is required, and the atmosphere contains no known hazard and work functions preclude splashes, immersion, or the potential for unexpected inhalation of, or contact with, hazardous levels of any chemicals.

- Escape mask for self-rescue

Note: During WMD response operations, the incident commander determines the appropriate level of personal protective equipment. As a guide, Levels A, B, and C are applicable for chemical/ biological/ radiological contaminated environments. Personnel entering protective postures must undergo medical monitoring prior to and after entry.

In addition, the National Fire Protection Association (NFPA) recommends that: 1) open-circuit chemical, biological, radiological and nuclear (CBRN) SCBA be certified by NIOSH as positive pressure (pressure demand) and also as compliant with NFPA 1981, Standard for Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services; 2) regular open-circuit SCBA be certified by NIOSH as positive pressure (pressure demand) and also as compliant with NFPA 1981, Standard for Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services; and, 3) closed-circuit SCBA should be certified by NIOSH as positive pressure (pressure demand) and have a rated service life of longer than 2 hours.

Further, NFPA recommends that grant recipients should purchase: 1) protective ensembles for chemical and biological terrorism incidents that are certified as compliant with Class 1, Class 2, or Class 3 requirements of NFPA 1994, Protective Ensembles for Chemical/Biological Terrorism Incidents; 2) protective ensembles for hazardous materials emergencies that are certified as compliant with NFPA 1991, Standard on Vapor Protective Ensembles for Hazardous Materials Emergencies, including the chemical and biological terrorism protection; 3) protective ensembles for search and rescue or search and recovery operations where there is no exposure to chemical or biological warfare or terrorism agents and where exposure to flame and heat is unlikely or nonexistent that are certified as compliant with NFPA 1951, Standard on Protective Ensemble for USAR Operations; and, 4) protective clothing from blood and body fluid pathogens for persons providing treatment to victims after decontamination that are certified as compliant with NFPA 1999, Standard on Protective Clothing for Emergency Medical Operations.

For more detailed guidance, please refer to the Inter Agency Board for Equipment Standardization and Interoperability 2000 Annual Report.

2. Explosive Device Mitigation and Remediation - Equipment providing for the mitigation and remediation of explosive devices in a WMD environment:

- Bomb Search Protective Ensemble for Chemical/Biological Response
- Chemical/Biological Undergarment for Bomb Search Protective Ensemble
- Cooling Garments to manage heat stress
- Ballistic Threat Body Armor (not for riot suppression)
- Ballistic Threat Helmet (not for riot suppression)
- Blast and Ballistic Threat Eye Protection (not for riot suppression)
- Blast and Overpressure Threat Ear Protection (not for riot suppression)
- Fire Resistant Gloves
- Dearmer/Disrupter
- Real Time X-Ray Unit
- Portable X-Ray Unit
- WMD Compatible Total Containment Vessel (TCV)
- WMD Upgrades for Existing TCV
- Robot
- Robot Upgrades
- Fiber Optic Kit (inspection or viewing)
- Tents, standard or air inflatable for chem/bio protection

3. WMD Technical Rescue Equipment - Equipment providing a technical search and rescue capability for a WMD environment:

- Listening devices
- Search cameras (including thermal imaging)
- Breaking devices (including spreaders, saws and hammers)
- Lifting devices (including air bag systems and hydraulic rams and jacks)

4. Interoperable Communications Equipment - Equipment and systems providing connectivity and electrical interoperability between local and interagency organizations to coordinate WMD response operations:

- Land Mobile, Two-Way In-Suit Communications (secure, hands-free, fully duplex, optional).
- Personnel Alert Safety System (PASS) - (location and physiological monitoring systems optional)
- Personnel Accountability Systems
- Individual/portable radios, software radios, portable repeaters, radio interconnect systems, satellite phones, batteries, chargers and battery conditioning systems
- Computer systems designated for use in an integrated system to assist with detection and communication efforts (must be linked with integrated software packages designed specifically for chemical and/or biological agent detection and communication purposes)
- Portable Meteorological Station (monitors temperature, wind speed, wind direction and barometric pressure at a minimum)
- Commercially available crisis management software

5. Detection Equipment - Equipment to sample, detect, identify, quantify, and monitor for chemical, biological, radiological and explosive agents throughout designated areas or at specific points:

Chemical

- M-8 Detection Paper for chemical agent identification
- M-9 Detection Paper (roll) for chemical agent (military grade) detection
- M-256 Detection Kit for Chemical Agent (weapons grade—blister: CX/HD/L; blood: AC/CK; and nerve: GB/VX) detection
- M-256 Training Kit
- M-18 Series Chemical Agent Detector Kit for surface/vapor chemical agent analysis
- Hazard Categorizing (HAZCAT) Kits
- Photo-Ionization Detector (PID)
- Flame Ionization Detector (FID)
- Surface Acoustic Wave Detector
- Gas Chromatograph/Mass Spectrometer (GC/MS)
- Ion Mobility Spectrometry
- Stand-Off Chemical Detector
- M-272 Chemical Agent Water Test Kit
- Colormetric Tube/Chip Kit specific for TICs and WMD applications
- Multi-gas Meter with minimum of O2 and LEL
- Leak Detectors (soap solution, ammonium hydroxide, etc)
- pH Paper/pH Meter
- Waste Water Classifier Kit
- Oxidizing Paper

Radiological

- Radiation detection equipment (electronic or other technology that detects alpha,
  beta, gamma, and high intensity gamma)
- Personal Dosimeter
- Scintillation Fluid (radiological) pre-packaged

Biological

- Point Detection Systems/Kits (Immunoassay or other technology)

6. Decontamination Equipment - Equipment and material used to clean, remediate, remove or mitigate chemical and biological contamination:

Chemical

- Decontamination system for individual and mass application with environmental controls, water heating system, showers, lighting, and transportation (trailer)
- Decon Litters/roller systems

- Extraction Litters, rollable
- Runoff Containment Bladder(s), decontamination shower waste collection with intrinsically-safe evacuation pumps
- Spill Containment Devices
- Overpak Drums
- Non-transparent Cadaver Bags (CDC standard)

Biological

- HEPA (High Efficiency Particulate Air) Vacuum for dry decontamination

7. Physical Security Enhancement Equipment - Equipment to enhance the physical security of critical infrastructure.

Surveillance, Warning, Access/Intrusion Control

Ground
- Motion Detector Systems: Acoustic; Infrared; Seismic; Magnetometers
- Barriers: Fences; Jersey Walls
- Impact Resistant Doors and Gates
- Portal Systems
- Alarm Systems
- Video Assessment/Cameras: Standard, Low Light, IR, Automated Detection
- Personnel Identification: Visual; Electronic; Acoustic; Laser; Scanners; Cyphers/Codes
- X-Ray Units
- Magnetometers
- Vehicle Identification: Visual; Electronic; Acoustic; Laser; Radar

Waterfront
- Radar Systems
- Video Assessment System/Cameras: Standard, Low Light, IR, Automated Detection
- Diver/Swimmer Detection Systems; Sonar
- Impact Resistant Doors and Gates
- Portal Systems
- Hull Scanning Equipment
- Plus all those for Ground

Sensors – Agent/Explosives Detection

- Chemical: Active/Passive; Mobile/Fixed; Handheld
- Biological: Active/Passive; Mobile/Fixed; Handheld
- Radiological
- Nuclear
- Ground/Wall Penetrating Radar

Inspection/Detection Systems

- Vehicle & Cargo Inspection System – Gamma-ray
- Mobile Search & Inspection System – X-ray
- Non-Invasive Radiological/Chem/Bio/Explosives System – Pulsed Neutron Activation

Explosion Protection

- Blast/Shock/Impact Resistant Systems
- Protective Clothing
- Column and Surface Wraps; Breakage/Shatter Resistant Glass; Window Wraps
- Robotic Disarm/Disable Systems

8. General Support Equipment - Equipment intended to support WMD incident response:

- Equipment trailer

9. Medical Supplies and Pharmaceuticals - Medical supplies and pharmaceuticals required for response to a WMD incident. Grantees are responsible for replenishing items after shelf-life expiration date(s).

Medical Supplies

- Automatic Biphasic External Defibrillators
- Equipment and supplies for establishing and maintaining a patient airway at the advanced life support level (to include OP and NG airways; ET tubes, styletes, blades, and handles; portable suction devices and catheters; and stethoscopes for monitoring breath sounds)
- IV Administration Sets (Macro and Micro)
- IV Catheters (14, 16, 18, 20, and 22 gauge)
- IV Catheters (Butterfly 22, 24 and 26 gauge)
- Manual Biphasic Defibrillators
- Eye Lense for Lavage or Continuous Medication
- Nasogastric Tubes
- Oxygen administration equipment and supplies (including bag valve masks; rebreather and non-rebreather masks, and nasal cannulas; oxygen cylinders, regulators, tubing, and manifold distribution systems; and pulse oximetry)
- Portable Ventilators
- Syringes (3cc and 10cc)
- 26 ga ½" needles (for syringes)
- 21 ga. 1 ½ " needles (for syringes)

Pharmaceuticals

- 2Pam Chloride
- Adenosine
- Albuterol Sulfate .083%
- Albuterol MDI
- Atropine
- Atropine Auto Injectors
- Benadryl
- CANA Auto Injectors
- Calcium Chloride
- Calcium Gluconate
- Ciprofloxin
- Cyanide kits
- Dextrose
- Dopamine
- Doxicillin
- Doxycycline
- Epinephrine (1:1,000 and 1:10,000)
- Glucagon
- Iodine
- Lasix
- Lidocaine
- Loperamide
- Magnesium Sulfate
- Methylprednisolone
- Narcan
- Nubain
- Nitroglycerine
- Normal Saline
- Silver Sulfadiazine
- Sodium Bicarbonate
- Sterile Water
- Tetracaine
- Thiamine
- Valium
- Verapamil